

(57) Abstract

The invention relates to a recombinant double stranded DNA molecule comprising an expression cassette comprising the following constituents: i) a promoter functional in nectaries of plants, ii) a DNA sequence encoding a protein which is fused to the promoter, (iii) a DNA sequence encoding a signal peptide that targets the recombinant protein to nectar, which is translationally fused to the DNA sequence encoding the recombinant protein, and optionally iv) a signal sequence functional in plants for the transcription termination and polyadenylation of an RNA molecule. The invention further relates to a process for producing a recombinant gene product from honey, comprising: i) producing a transgenic plant by introducing in a plant cell a recombinant double-stranded DNA molecule, regenerating plants from the transgenic cell, and selecting modified plants exhibiting excretion of the recombinant gene product in nectar, ii) allowing insects, preferably bees, to collect nectar from the transgenic plants and to process the nectar into honey, and iii) isolating and purifying the gene product from the honey.